

		
Color	Frequency	Wavelength
violet	668–789 THz	380–450 nm
blue	606–668 THz	450–495 nm
green	526–606 THz	495–570 nm
yellow	508–526 THz	570–590 nm
orange	484–508 THz	590–620 nm
red	400–484 THz	620–750 nm

the LOOPOOL Visible Spectrum Scale Project

Shown to the left is the frequency spectrum of visible light in Terahertz. Using the center of these frequency ranges for each color as a starting point and pitching them down, a hexatonic scale has been created, roughly corresponding to: F#, D#, C#, C, B, A. These frequencies have been given MIDI note assignments and the 8 octaves spread across the 52 white keys of the keyboard (black keys are not used). Below is a visual representation of the scale across the keyboard and a frequency to MIDI note conversion chart.



21 23 24 26 28 29 31 33 35 36 38 40 41 43 45 47 48 50 52 53 55 57 59 60 62 64 65 67 69 71 72 74 76 77 79 81 83 84 86 88 89 91 93 95 96 98 100 101 103 105 107 108

Color	Freq.	APX Note - +/- Cents	MIDI #
00. Violet	5828 hz	F#7 -27.08	108
01. Blue	5096 hz	D#7 +40.55	107
02. Green	4528 hz	C#7 +35.96	105
03. Yellow	4136 hz	C7 -20.8	103
04. Orange	3968 hz	B7 +7.4	101
05. Red	3536 hz	A7 +7.85	100
06. Violet	2914 hz	F#6 -27.08	98
07. Blue	2548 hz	D#6 +40.55	96
08. Green	2264 hz	C#6 +35.96	95
09. Yellow	2068 hz	C6 -20.8	93
10. Orange	1984 hz	B6 +7.4	91
11. Red	1768 hz	A6 +7.85	89
12. Violet	1457 hz	F#5 -27.08	88
13. Blue	1274 hz	D#5 +40.55	86
14. Green	1132 hz	C#5 +35.96	84
15. Yellow	1034 hz	C5 -20.8	83
16. Orange	992 hz	B5 +7.4	81
17. Red	884 hz	A5 +7.85	79
18. Violet	728.5 hz	F#4 -27.08	77
19. Blue	637 hz	D#4 +40.55	76
20. Green	566 hz	C#4 +35.96	74
21. Yellow	517 hz	C4 -20.8	72
22. Orange	496 hz	B4 +7.4	71
23. Red	442 hz	A4 +7.85	69
24. Violet	364.25 hz	F#3 -27.08	67
25. Blue	318.5 hz	D#3 +40.55	65
26. Green	283 hz	C#3 +35.96	64
27. Yellow	258.5 hz	C3 -20.8	62
28. Orange	248 hz	B3 +7.4	60

29.Red	221 hz	A3 +7.85	59
30.Violet	182.125 hz	F#2 -27.08	57
31.Blue	159.25 hz	D#2 +40.55	55
32.Green	141.5 hz	C#2 +35.96	53
33.Yellow	129.25 hz	C2 -20.8	52
34.Orange	124 hz	B2 +7.4	50
35.Red	110.5 hz	A2 +7.85	48
36.Violet	91.0625 hz	F#1 -27.08	47
37.Blue	79.625 hz	D#1 +40.55	45
38.Green	70.75 hz	C#1 +35.96	43
39.Yellow	64.625 hz	C1 -20.8	41
40.Orange	62 hz	B1 +7.4	40
41.Red	55.25 hz	A1 +7.85	38
42.Violet	45.53125 hz	F#0 -27.08	36
43.Blue	39.8125 hz	D#0 +40.55	35
44.Green	35.375 hz	C#0 +35.96	33
45.Yellow	32.3125 hz	C0 -20.8	31
46.Orange	31 hz	B0 +7.4	29
47.Red	27.626 hz	A0 +7.85	28
48.Violet	22.765625 hz	F#-1 -27.08	26
49.Blue	19.90625 hz	D#-1 +40.55	24
50.Green	17.6875 hz	C#-1 +35.96	23
51.Yellow	16.15625 hz	C-1 -20.8	21